



Theodore F. Emerson et al.

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For: OPERATING SYSTEM
INDEPENDENT APPARATUS FOR
GRAPHICAL REMOTE ACCESS

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Group Art Unit: 2628

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37 C.F.R. 1.8

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**April 19, 2007**

Date \_\_\_\_\_

*Melissa We*

**Melissa Neumann**

Sir:

**DECLARATION OF THEODORE F. EMERSON UNDER 37 C.F.R. § 1.131**

I, Theodore F. Emerson, hereby declare as follows:

1. I am employed as an engineer at Hewlett-Packard Co., the assignee of the instant patent application.
2. I am a co-inventor of record and in fact with regard to the above-referenced application.
3. My business address is set forth below, along with my signature.
4. Claim 1 of the instant application is set forth below:

A method for transmitting video graphics data, comprising:  
dividing a screen into a number of blocks, the blocks having  
contents;  
periodically reading the contents of each one of the blocks;

computing a unique value for a first block based on the contents;  
comparing the unique value for the first block to a previously  
computed unique value corresponding to the first block;  
and  
transmitting the contents of the first block if the unique value for  
the first block is different from the previously computed  
unique value corresponding to the first block.

5. I, as co-inventor, prior to April 28, 1999, actually reduced to practice a method for transmitting video graphics data as recited in claim 1. Specifically, I created software that performed the acts of dividing a screen into a number of blocks, the blocks having contents; periodically reading the contents of each one of the blocks; computing a unique value for a first block based on the contents; comparing the unique value for the first block to a previously computed unique value corresponding to the first block; and transmitting the contents of the first block if the unique value for the first block is different from the previously computed unique value corresponding to the first block.

6. Attached hereto as Exhibit A is a document entitled "Remote Redirection of Graphical Console Data." Exhibit A, which was prepared prior to April 28, 1999, has been redacted to remove confidential information and references to dates. A device constructed according to Exhibit A would meet at least claim 1 of the instant application. Specifically, using claim 1 as a representative claim, Exhibit A describes a method for transmitting video graphics data, comprising:

dividing a screen into a number of blocks, the blocks having contents; *See* Exhibit A, pg. 3, Section 2 (Implementation), second paragraph ("The frame buffer is divided into blocks which consist of a rectangular block of pixels."); pg. 4, Section 2.2 (Sampling Techniques), second paragraph ("The screen is divided into a plurality of blocks, each containing a rectangular block of pixels."); Fig. 2-1.

periodically reading the contents of each one of the blocks," Exhibit A, pg. 3, Section 2 (Implementation), third paragraph ("The invention uses a modified sampling technique in conjunction with hardware assistance built into certain PCI video graphics controllers to procure data from the graphics frame buffer."); pg. 4, Section 2.2 (Sampling Techniques),

second paragraph (“Each block is sequentially procured, converted to grayscale, and encoded.”).

computing a unique value for a first block based on the contents;” Exhibit A, pg. 3, Section 2 (Implementation), second paragraph (“A hashing algorithm is applied to the decimated pixels within the block to produce a 16 –bit hash value.”); pg. 5, Section 2.4 (Hashing Algorithm) (“From each pixel block, the gray scale values are fed into a hashing algorithm to generate a ‘signature’ for the pixel block.”).

comparing the unique value for the first block to a previously computed unique value corresponding to the first block; *Id.* (“This value can be stored and compared in successive sampling periods.”).

transmitting the contents of the first block if the unique value for the first block is different from the previously computed unique value corresponding to the first block; Exhibit A, pg. 3, Section 2 (Implementation) (“If a block hash signature differs from a previously stored value, the block is transmitted to the management console.”), pg. 5, Section 2.5 (Data Encoding) (“When a block has been identified for transmission, the decimated grayscale value of the block are transmitted to the management console.”).


7. As set forth below, I constructed a device according to Exhibit A prior to April 28, 1999. That device functioned for its intended purpose.

8. Attached hereto as Exhibit B is a source code listing of a computer program that I created prior to April 28, 1999. Exhibit B has been redacted to remove confidential information and references to dates. The computer program set forth in Exhibit B did in fact perform the recitations set forth in at least claim 1 of the instant application. Specifically, the computer program includes a method for transmitting video graphics data, comprising:

dividing a screen into a number of blocks, the blocks having contents; Exhibit B, pg. 12, (the relevant portion of the program has been hand marked with the legend “Section A”).

jeopardize the validity of the application, any patent issuing thereon, or any patent to which this  
verified statement is directed.

Dated: 4/18/2007

By:   
Theodore F. Emerson

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|-------------------------|----------------------------------------|
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